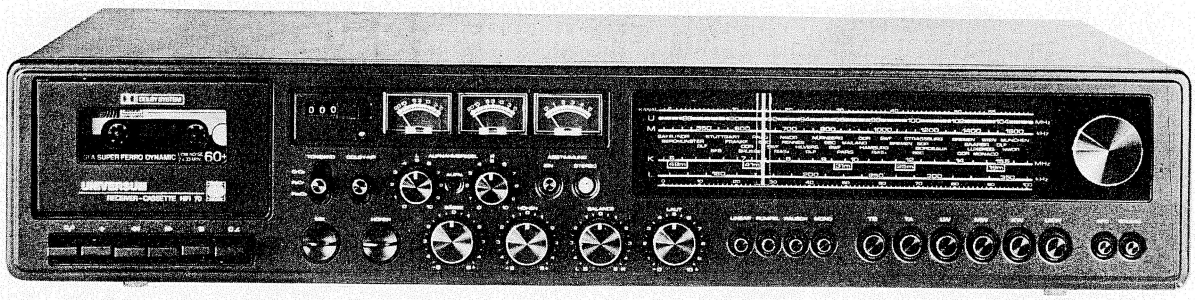
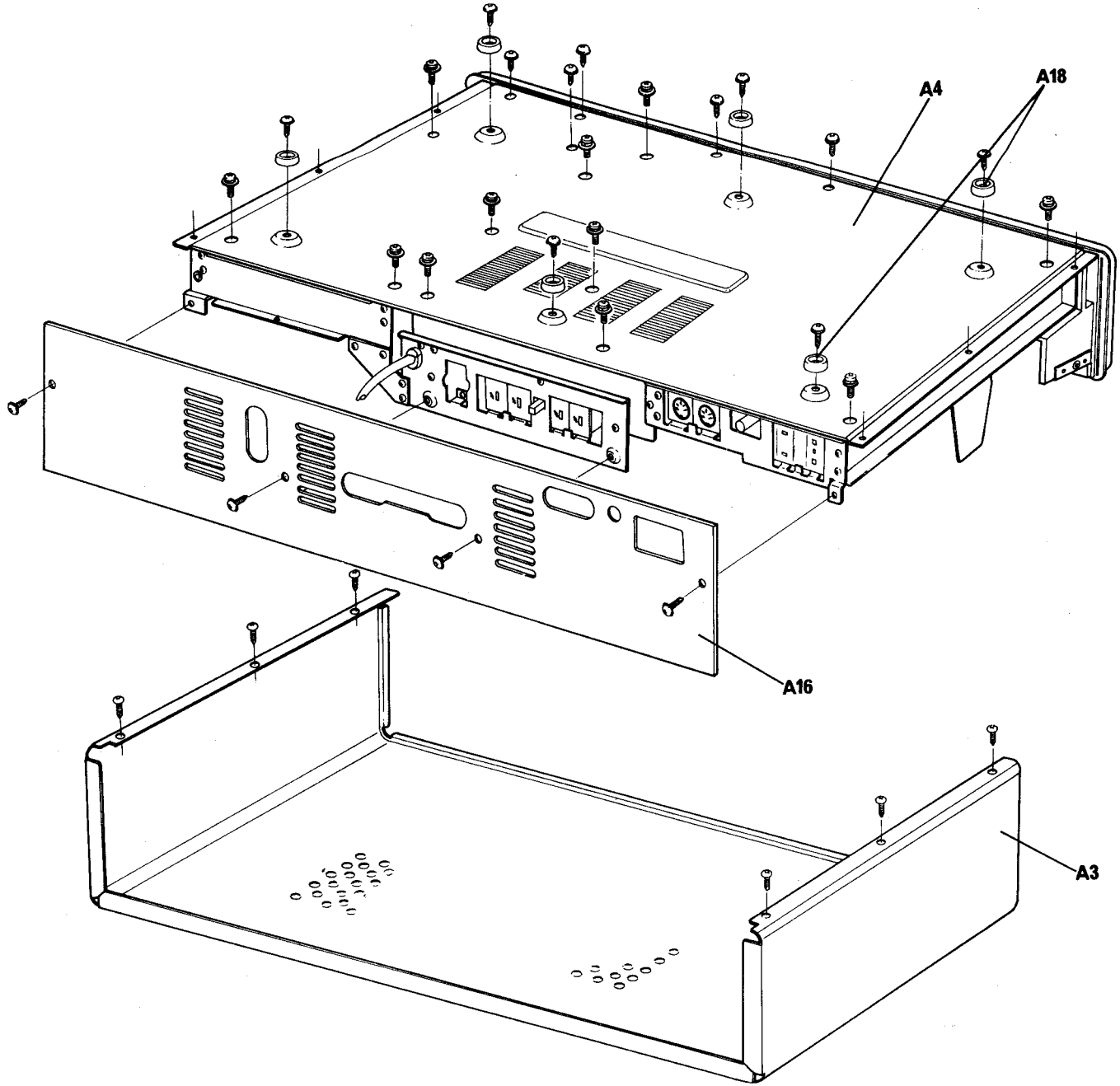
Quelle **Technischer Kundendienst**

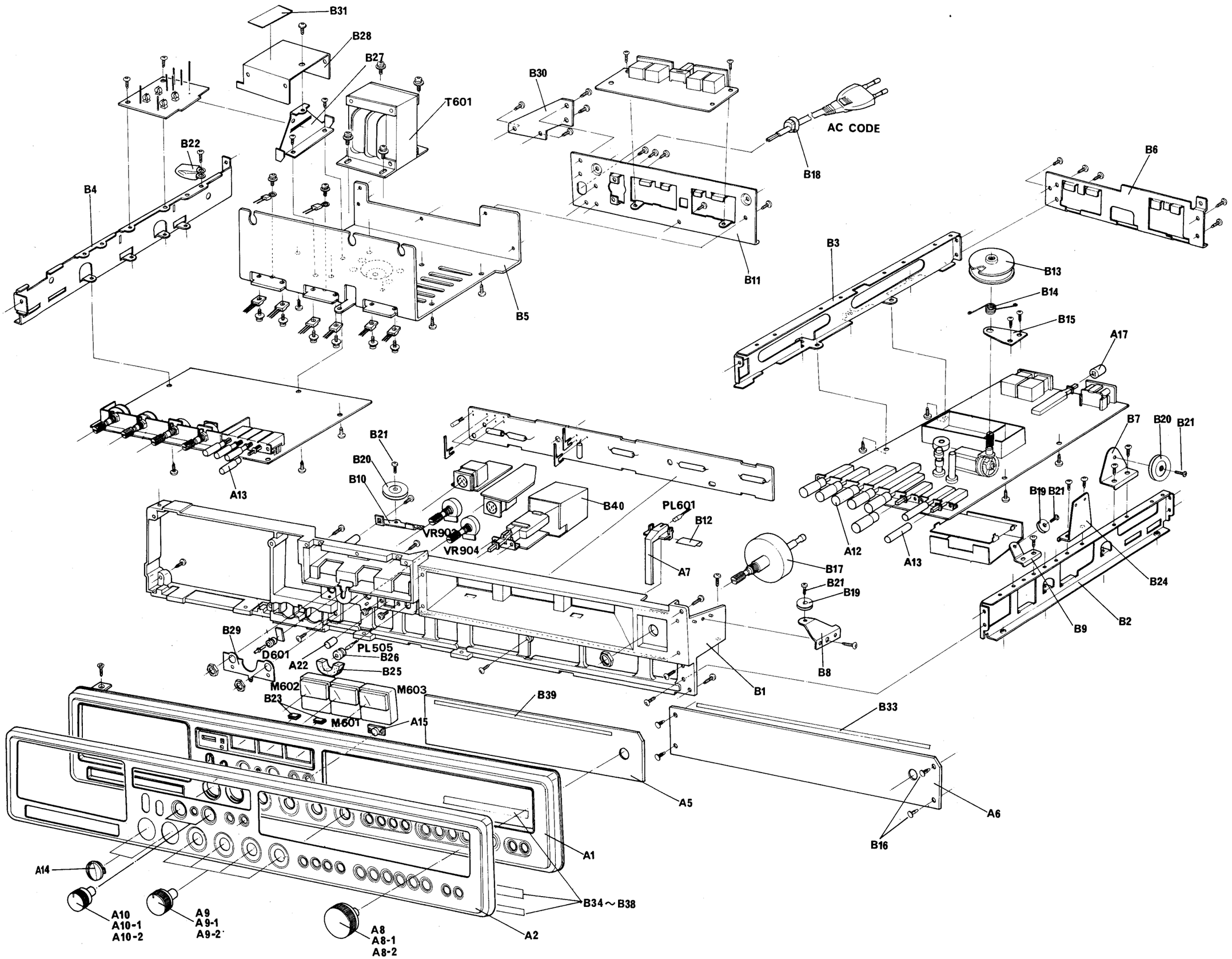
Technische Unterlage

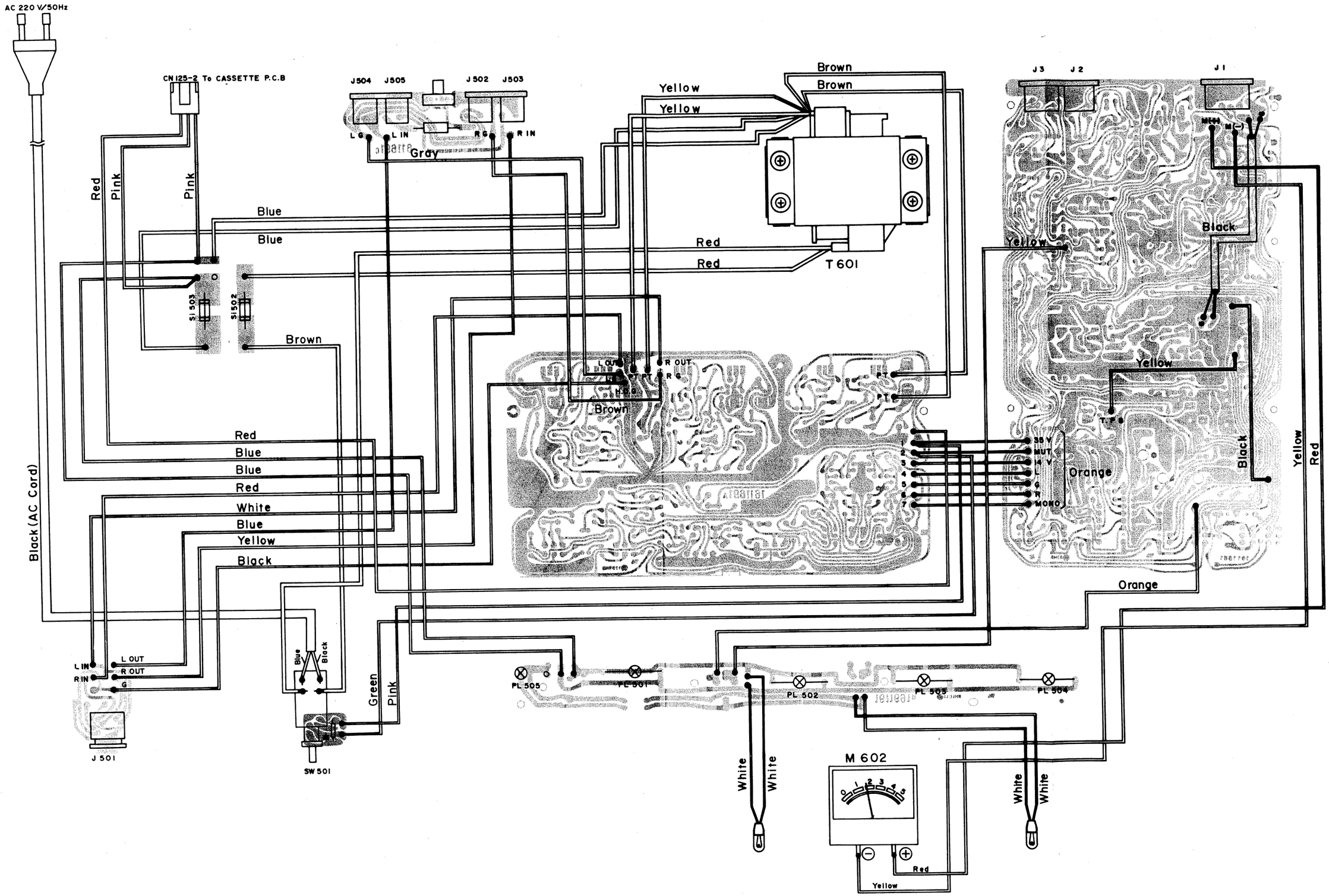
003.298 7

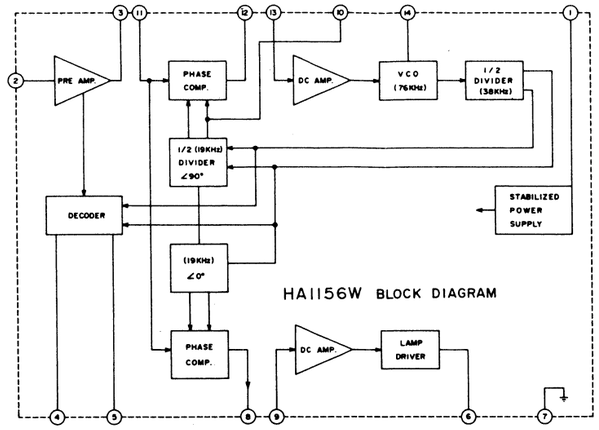


BESTELL-NR.	0032987
GERAETEBEZEICHNUNG	HIFI-STEREO-STEUERGER
WARENGATTUNG	652
AUSFUEHRUNGS-NR.	001
GERAETEBESCHREIBUNG	MIT TAPE DECK
PRIVILEG	VTC 23814
LIEFERANTEN-NR.	79012
PREIS	700.00
KATALOG	784
GARANTIEZEIT	6
KD-SEKTOR	R
HEIM/BRINGE	WERKSTATT
BETREUUNG	EIGEN
KOSTENTRAEGER	EIGEN
REPARATURFAEHIG	JA

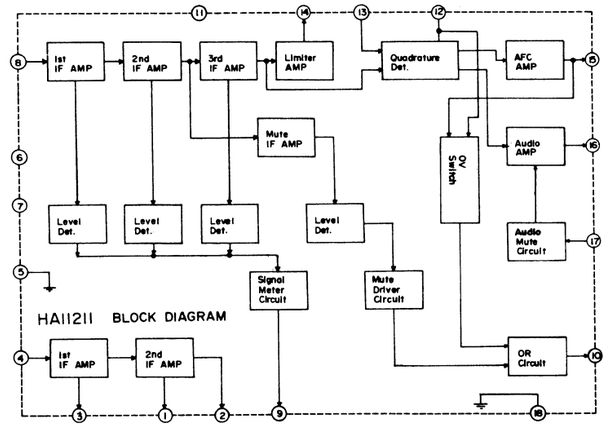

A4
A18
A16
A3


B31
B28
B27
T601
B30
AC CODE
B18
B22
B4
B5
B11
B6
B3
B13
B14
B15
A17
B7
B20
B21
A13
B21
B20
B10
B40
PL601
B12
VR903
VR904
A7
A12
A13
B17
B21
B19
B19 B21
B24
B9
B2
B29
D601
PL505
B26
A22
B25
B8
M602
M603
B23
M601
A15
B1
B39
B33
A5
A6
B16
A1
A14
B34～B38
A10
A10-1
A10-2
A9
A9-1
A9-2
A8
A8-1
A8-2
A2

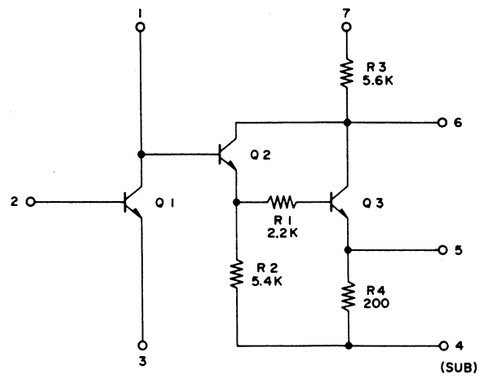

AC 220 V/50Hz
Black (AC Cord)
CN125-2 To CASSETTE P.C.B
J504 J505 J502 J503
L G
L IN
R G
R IN
Gray
Red
Pink
Pink
Blue
Blue
Brown
Yellow
Yellow
Brown
Red
Red
T 601
SI 503
SI 502
L OUT
R OUT
R G
Brown
Red
Blue
Blue
Red
White
Blue
Yellow
Black
J3 J2
J1
M(+)
M(-)
Black
Yellow
Yellow
Red
Black
Orange
35 V
MUT
14 V
L
G
R
MONO
Orange
L IN
R IN
L OUT
R OUT
G
J 501
Blue
Black
SW 501
Green
Pink
PL 505
PL 501
PL 502
PL 503
PL 504
White
White
M 602
Red
Yellow
White
White

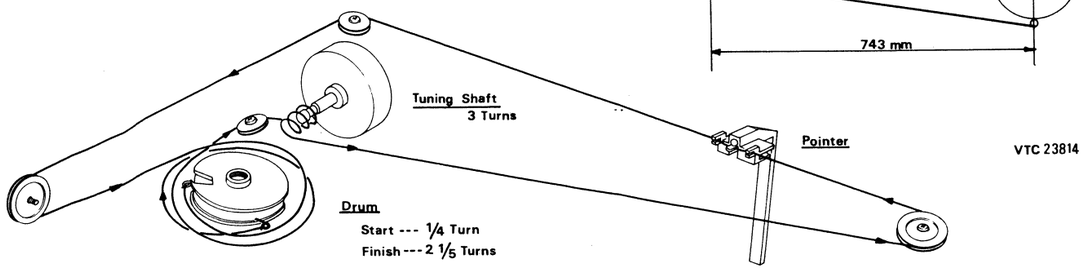


HA1156W BLOCK DIAGRAM



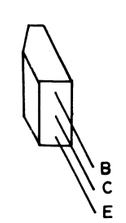
HA11211 BLOCK DIAGRAM

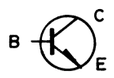




VTC 23814

TRANSISTER, FET and I C CONNECTION

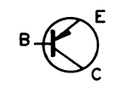




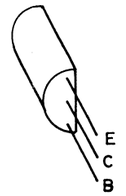
Q 2,4	2SC535 (B)	Q 509,510
Q 6	2SC460(B)	Q 511, 512
Q 3	2SC461 (B)	Q 513,514
Q7,8, 505,506	2SC458(C)	Q 520,523
Q 9,10, 801,802	2SC1335(E)	Q 525,907,908
Q 901,902,903,904	2SC1344(E)	

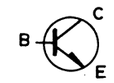
2SC1213A(C)

2SC1213(C)

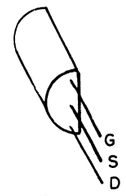


Q 507, 508	2SA836(D)
Q 513, 514	2SC673A(C)

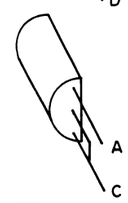


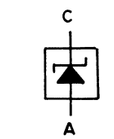


Q ,905,906	2SC2308(C)
Q 11,12	
Q 501,502	2SC2309(E)
Q 503,504	
Q 909,910	
Q 911, 912	

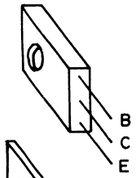


Q 1, 5	2SK49

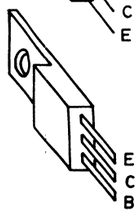


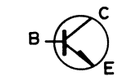


IC501	μPC574J

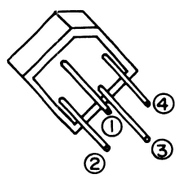


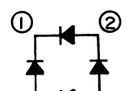
Q 519, 524	2SC1368(C)



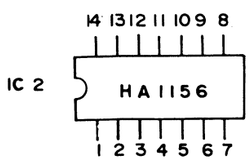


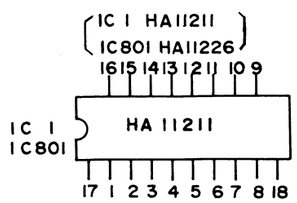
Q 515, 516	2SC726(C)
Q 517, 518	

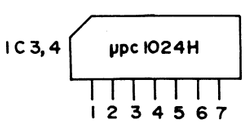


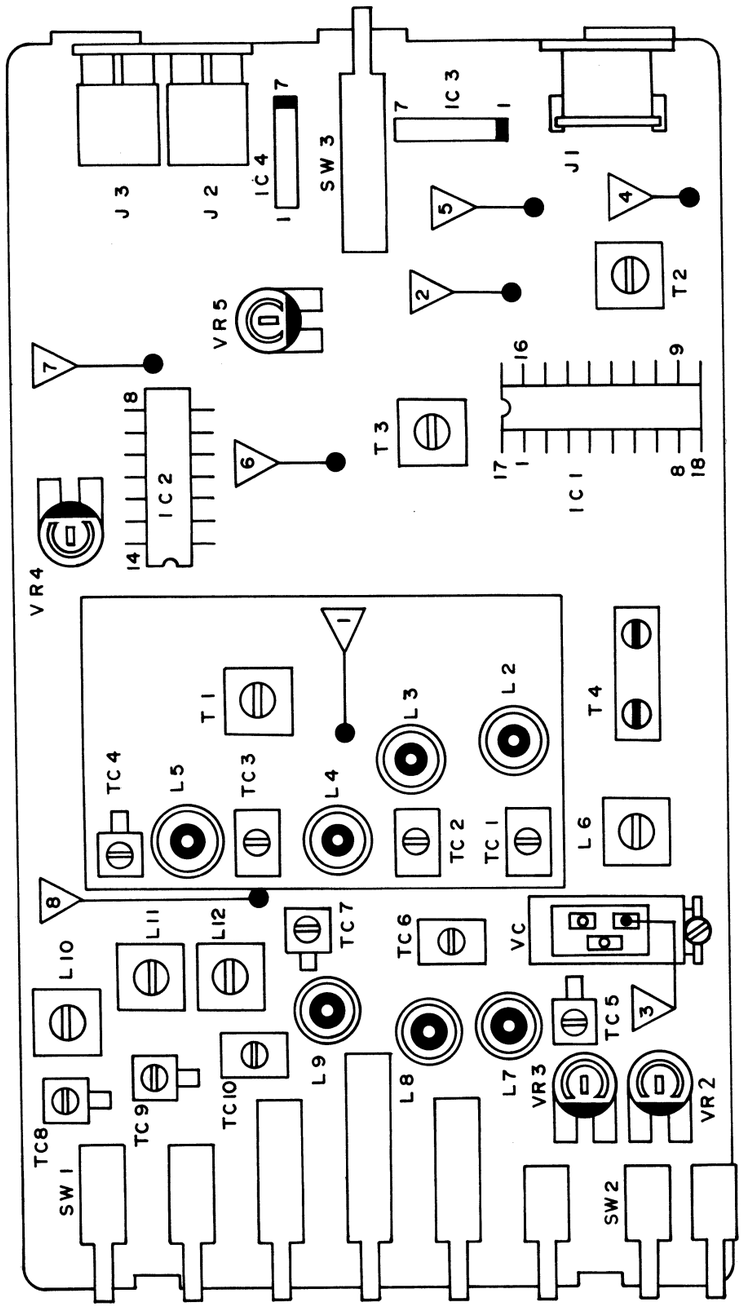


D 501	M4C-31



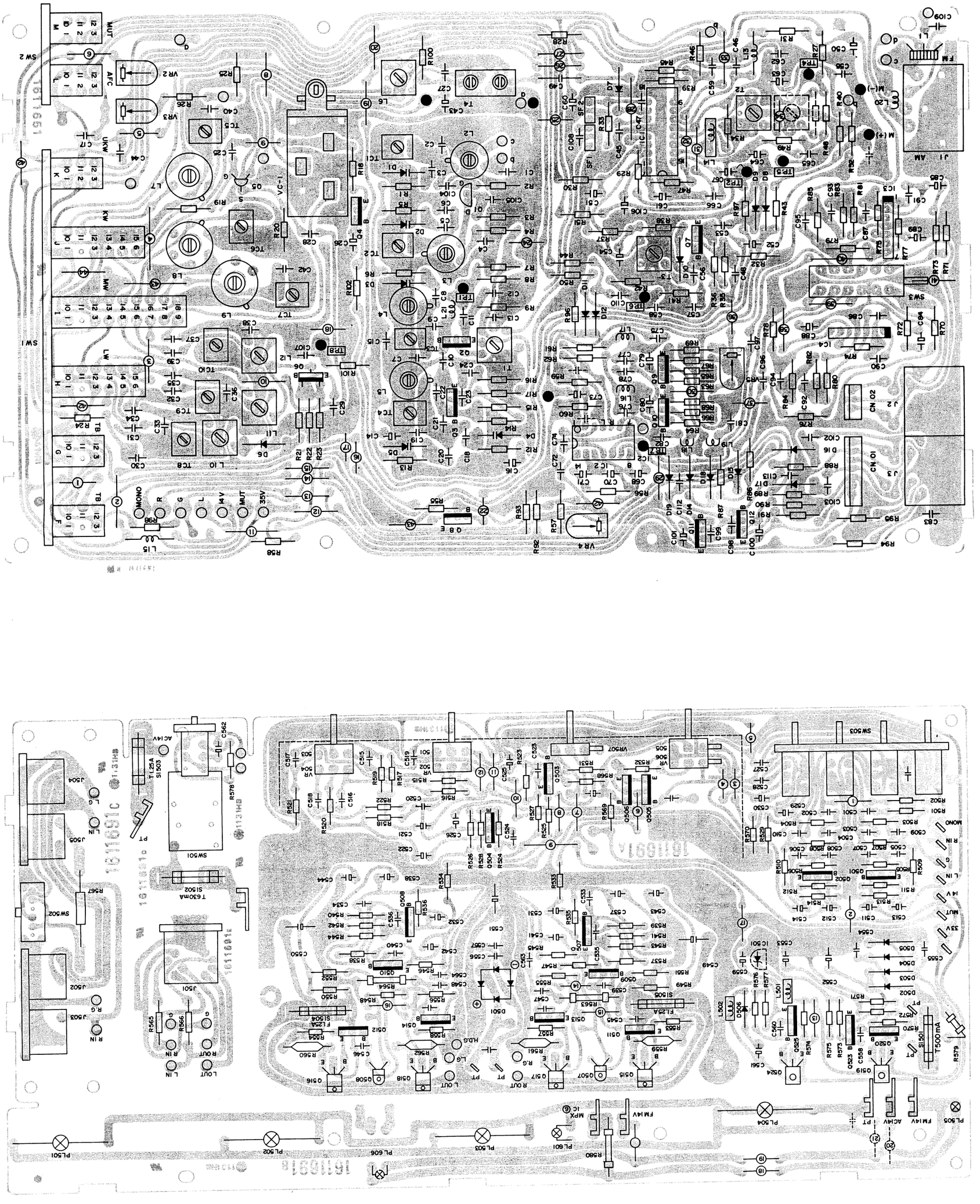




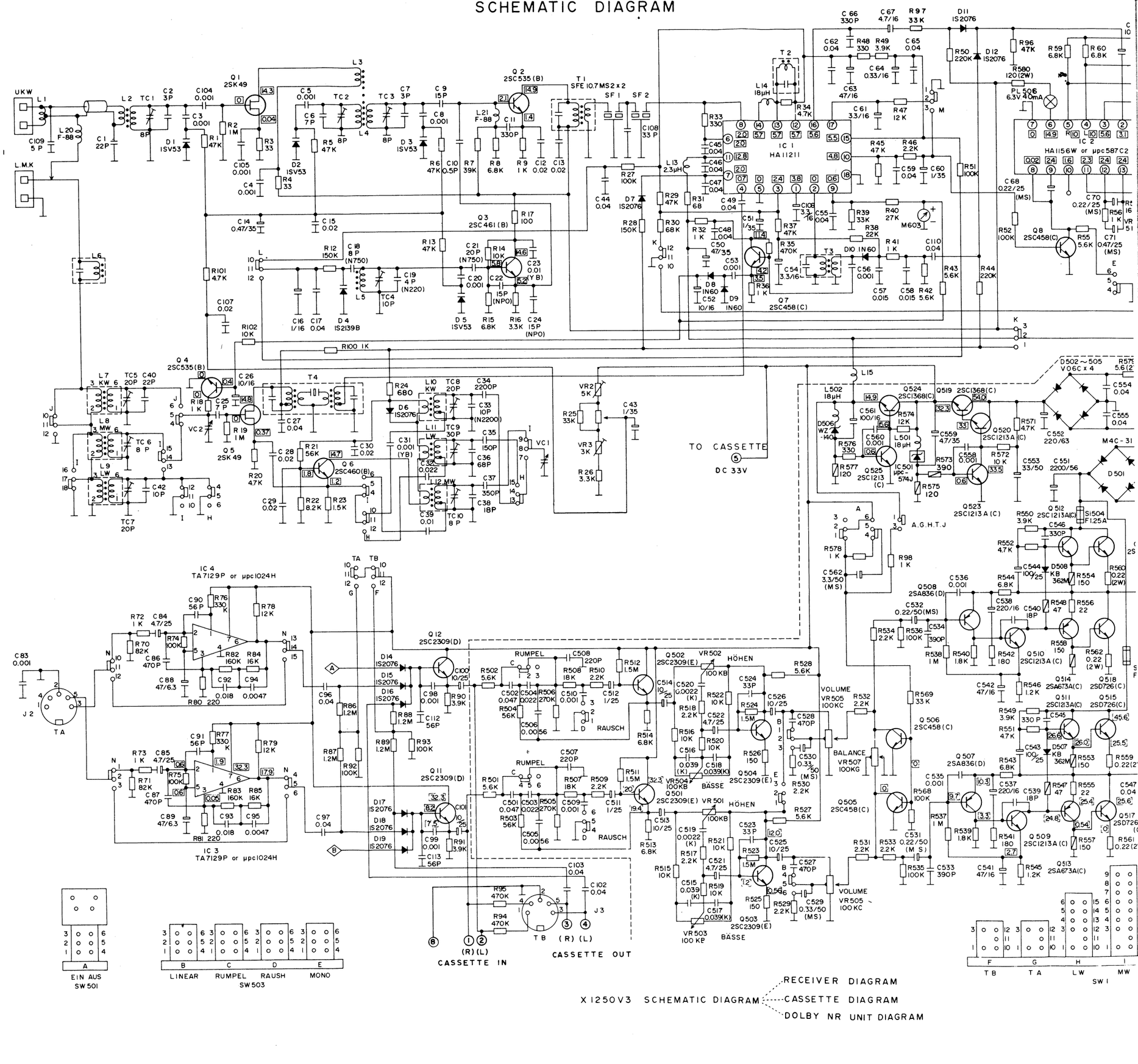


Abgleichschema

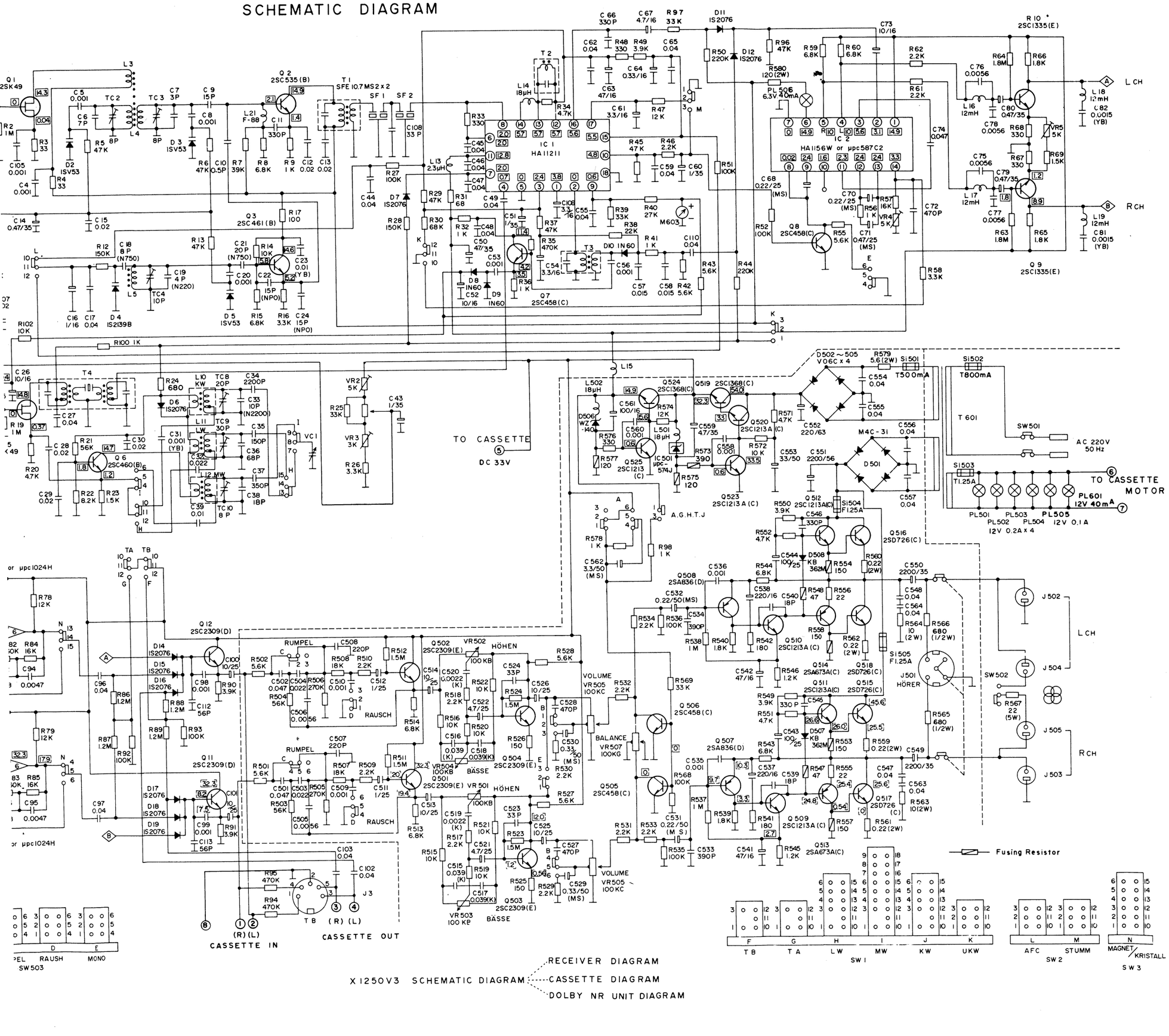
Abgleich	Wellen-Bereich	Zeiger-Stellung	Abgleich mit Meßsender: Sig.-Gen.	Abgleich mit Meßsender: Oszillograph u. AC Voltmeter	Abgleich-Punkt	Bemerkung
AM-ZF	M	1. Anschl.	460 KHz an J 1	TP.6	T 3,4	maximum
					L 6	minimum
FM-ZF	U		10,7 MHz an J 1	TP.2	T 1	maximum
				DC µA-Meter zwischen TP.4, TP.5	T 2	± 0 µA
MW	M	510 KHz	an J 1	an J 3	L 12	maximum
		1650 KHz			TC 10	maximum
		600 KHz			L 8	maximum
		1400 KHz			TC 6	maximum
LW	L	145 KHz			L 11	maximum
		360 KHz			TC 9	maximum
		160 KHz			L 9	maximum
		330 KHz			TC 7	maximum
KW	K	5,9 MHz			L 10	maximum
		16 MHz			TC 8	maximum
		7 MHz			L 7	maximum
		14 MHz			TC 5	maximum
FM	U	87,4 MHz			L 5	maximum
		104,5 MHz			TC 4	maximum
		90 MHz			L 2,3,4	maximum
		102 MHz			TC 1,2,3	maximum
FM-U		1. Anschl.		TP.8, DC-Voltmeter	VR 2	auf 5 V
		R. Anschl.			VR 3	auf 28 V
FM-Recorder		96 MHz	an J 1 1 m V Stereo-Signal unmoduliert	F-Zähler über 100 K an TP 7	VR 4	auf 19 VHz
				an J 3	VR 5	auf beste Kanaltrennung



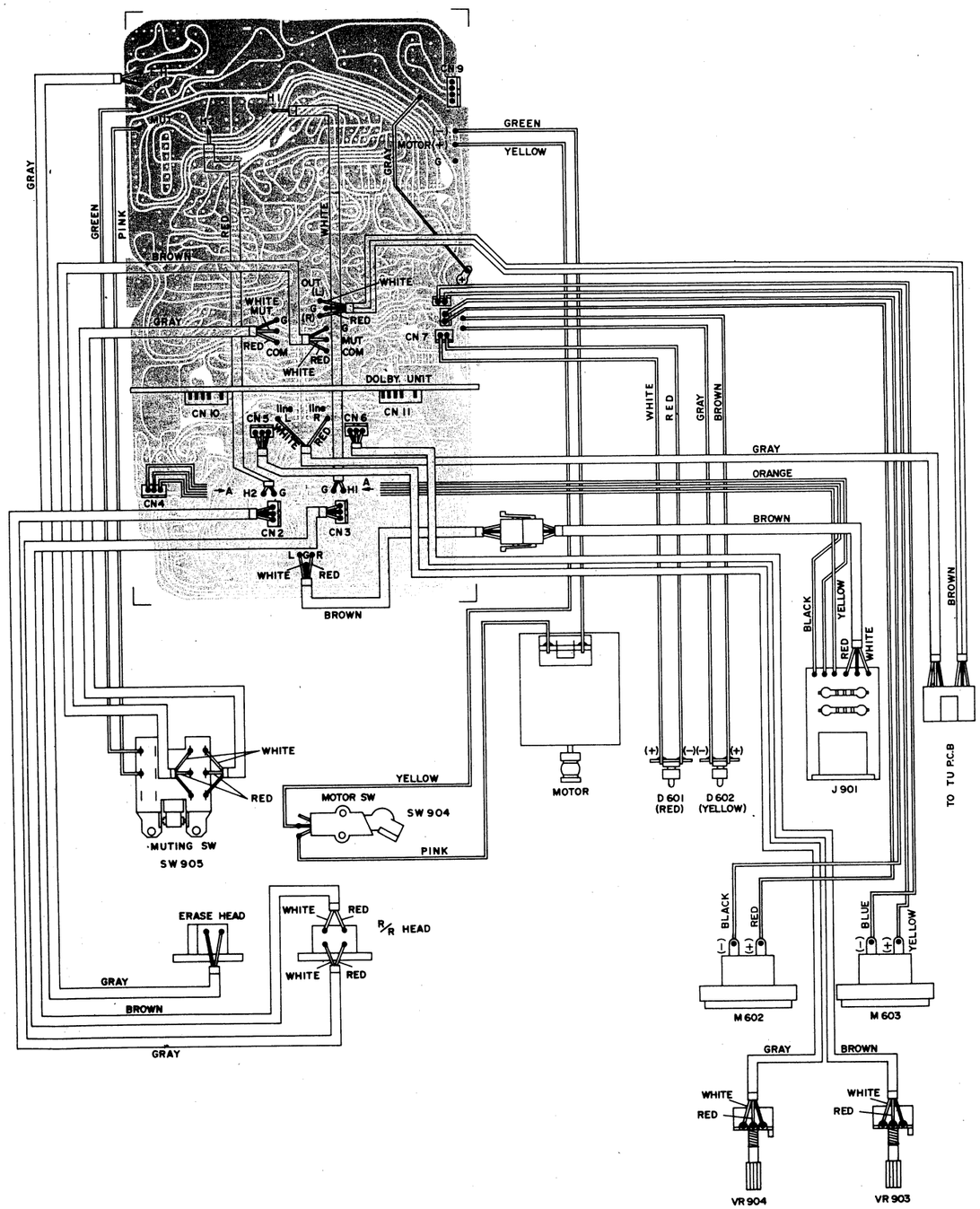
SCHEMATIC DIAGRAM

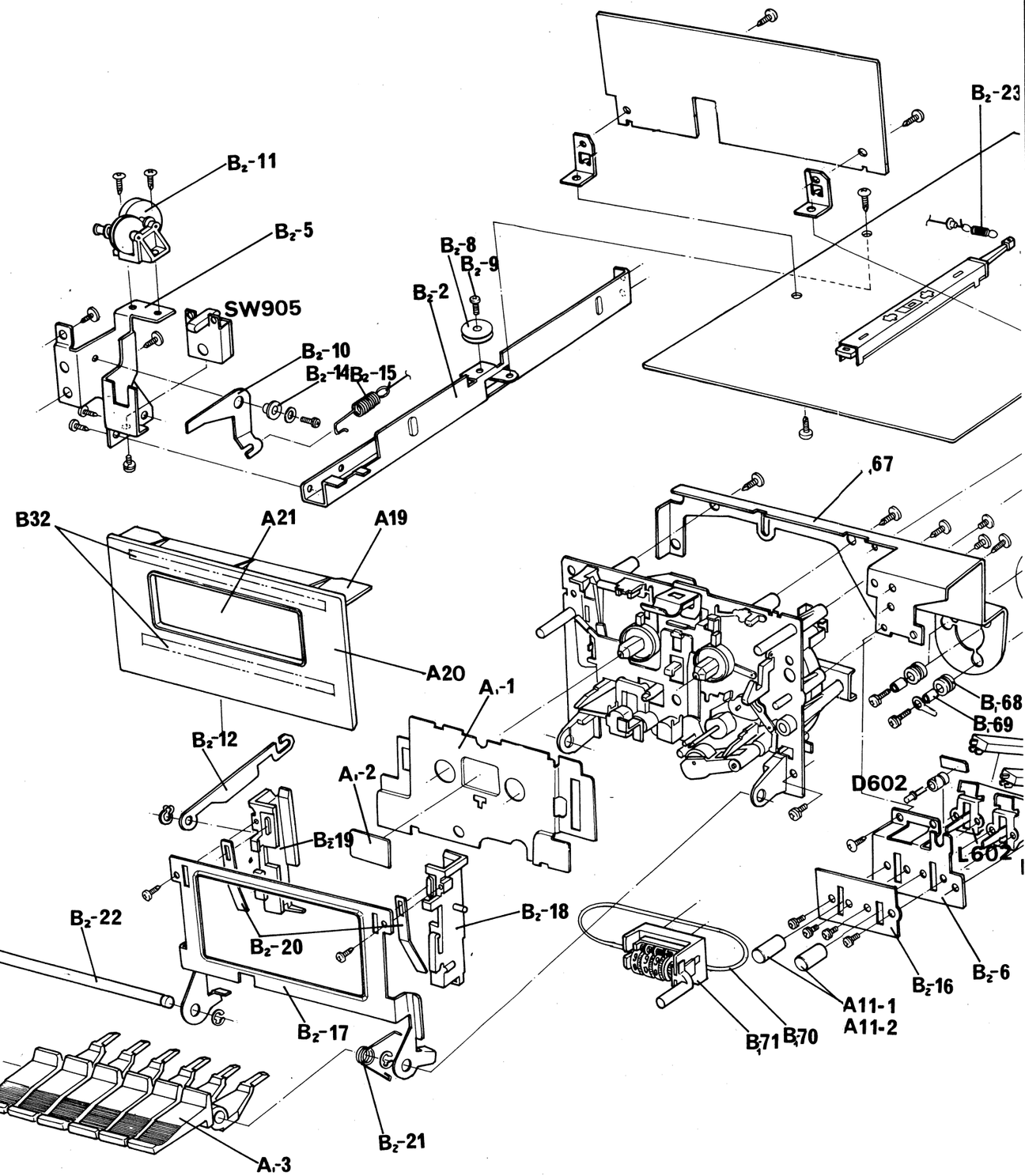


SCHEMATIC DIAGRAM



X1250V3 SCHEMATIC DIAGRAM ..... RECEIVER DIAGRAM
..... CASSETTE DIAGRAM
..... DOLBY NR UNIT DIAGRAM


CN9
MOTOR (+)
GREEN
YELLOW
GRAY
GREEN
PINK
BROWN
RED
WHITE
GRAY
OUT (L)
(R)
WHITE
RED
WHITE MUT.
G
RED COM
WHITE
RED
MUT
COM
CN7
DOLBY UNIT
CN10
CN5
line L
line R
CN6
CN11
WHITE
RED
GRAY
BROWN
GRAY
ORANGE
BROWN
CN4
A
H2
G
HI
CN2
CN3
L
R
WHITE
RED
BROWN
WHITE
YELLOW
MUTING SW
SW905
RED
MOTOR SW
SW904
PINK
MOTOR
D601 (RED)
D602 (YELLOW)
J901
TO TU P.C.B
ERASE HEAD
WHITE
RED
R/R HEAD
GRAY
WHITE
RED
BROWN
GRAY
BLACK
RED
BLUE
YELLOW
M602
M603
GRAY
BROWN
WHITE
RED
WHITE
RED
VR904
VR903


B2-11
B2-5
SW905
B2-10
B2-14
B2-15
B2-8
B2-9
B2-2
B2-23
B32
A21
A19
A20
A1-1
B2-12
A1-2
B2-19
B2-22
B2-20
B2-18
B2-17
B2-21
A1-3
67
B1-68
B1-69
D602
L602
B2-16
B2-6
A11-1
A11-2
B1-71
B1-70

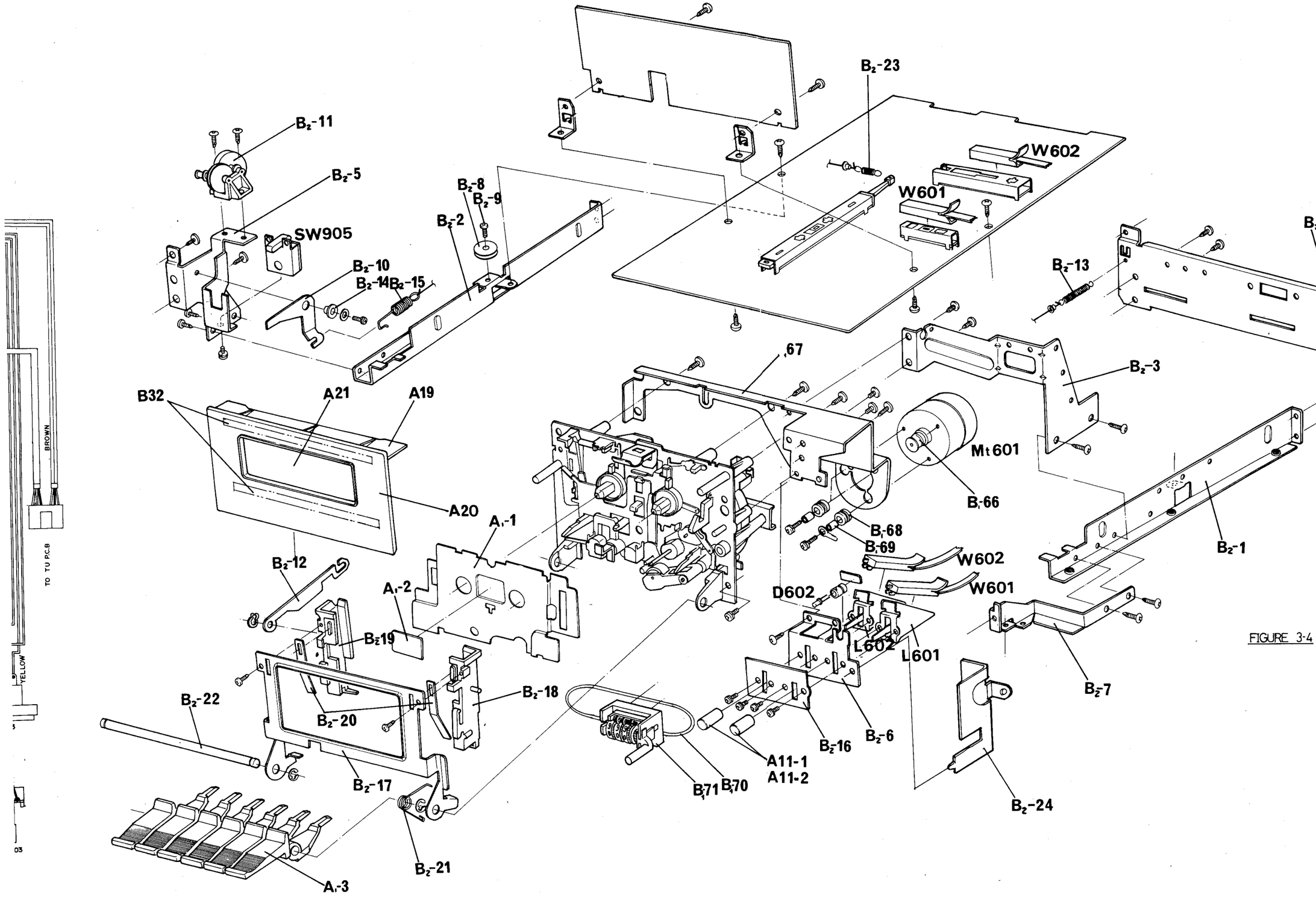
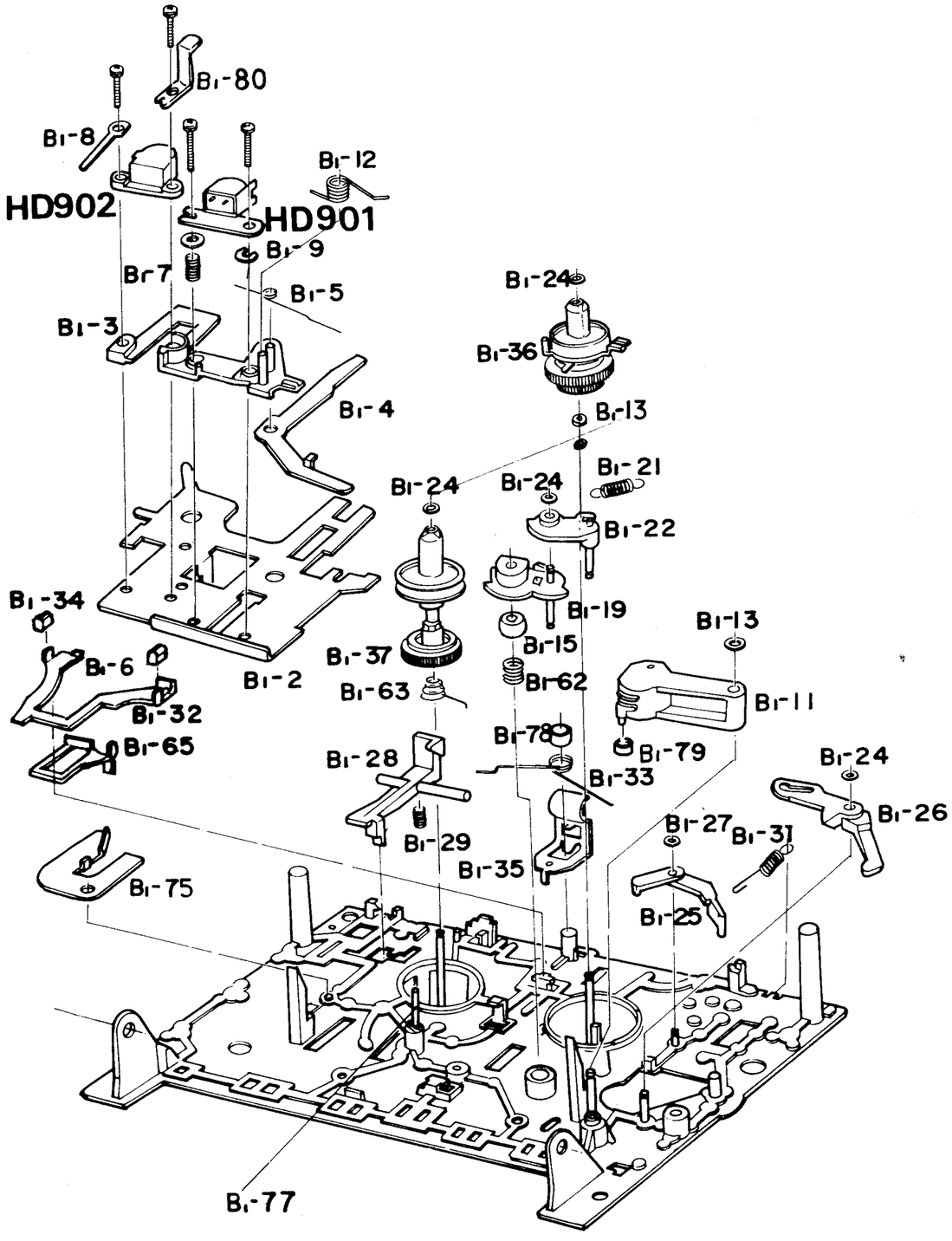
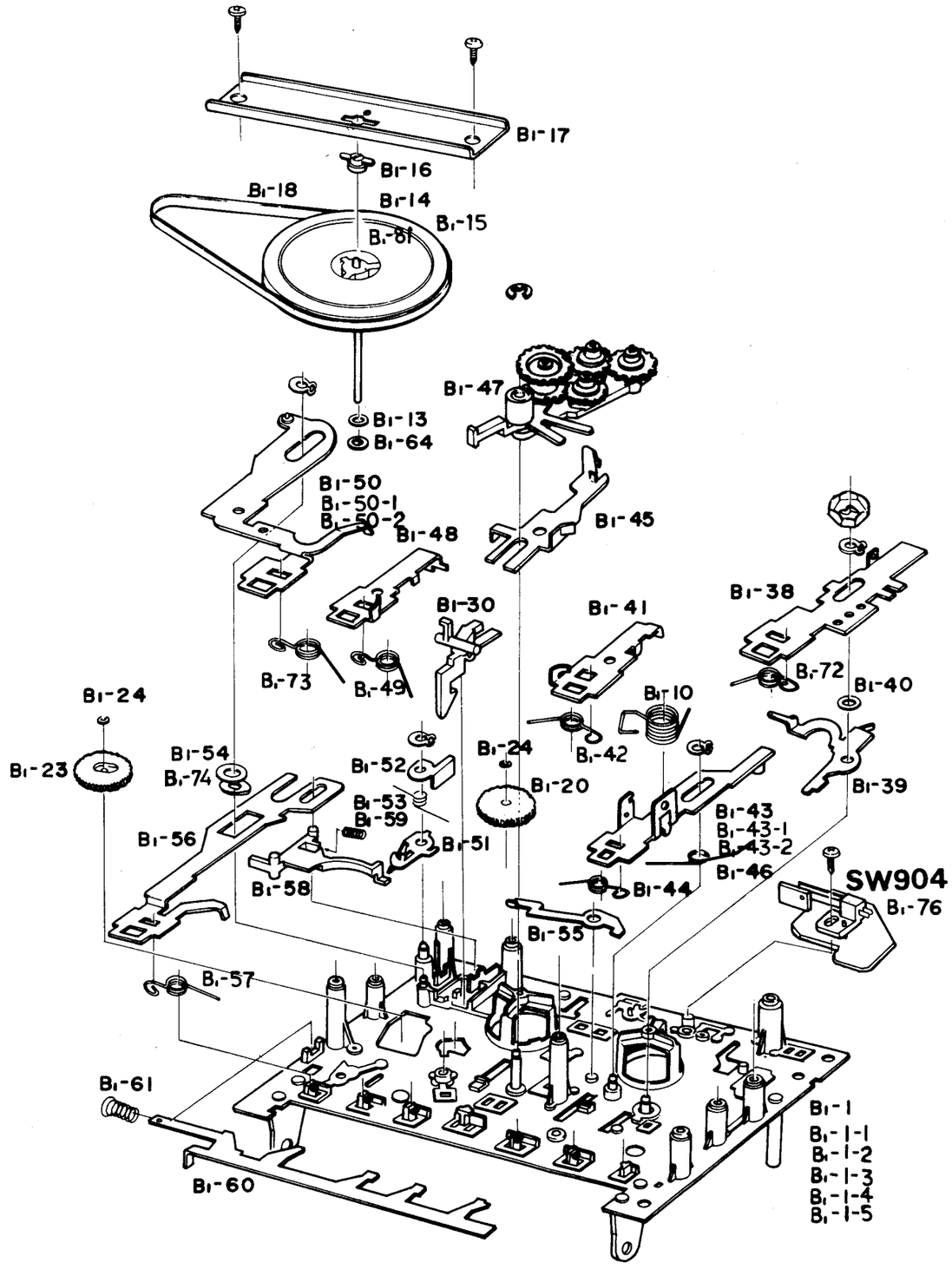
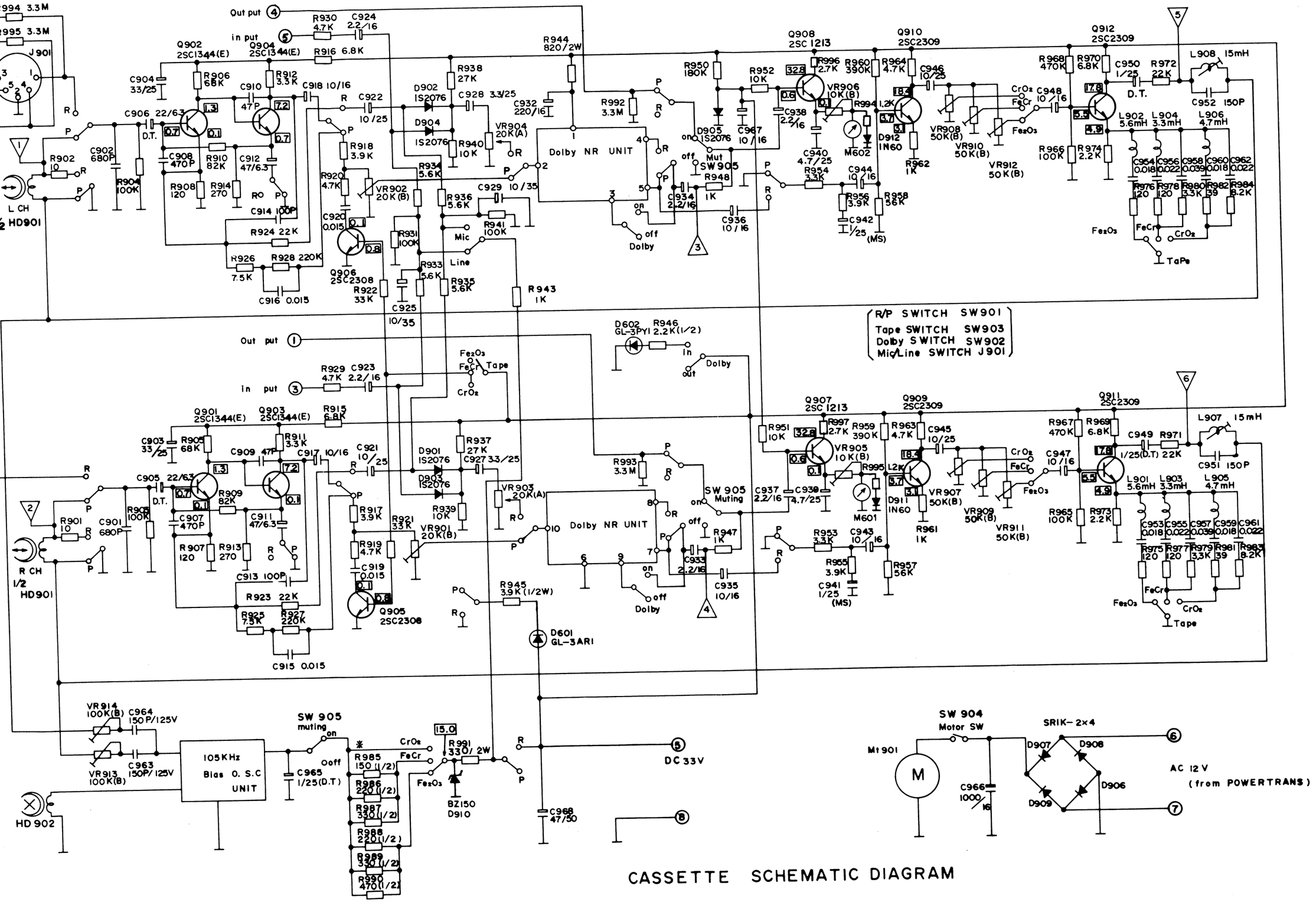

B2-11
B2-5
SW905
B2-8
B2-9
B2-2
B2-10
B2-14
B2-15
B2-23
W602
W601
B2-4
B2-13
B2-3
67
B32
A21
A19
A20
A1-1
Mt601
B1-66
B1-68
B1-69
W602
W601
B2-1
B2-12
A1-2
D602
L602
L601
B2-19
B2-22
B2-18
B2-20
B2-17
B2-16
B2-6
A11-1
A11-2
B2-7
B1-71
B1-70
B2-24
B2-21
A1-3
BROWN
YELLOW
TO TU P.C.B

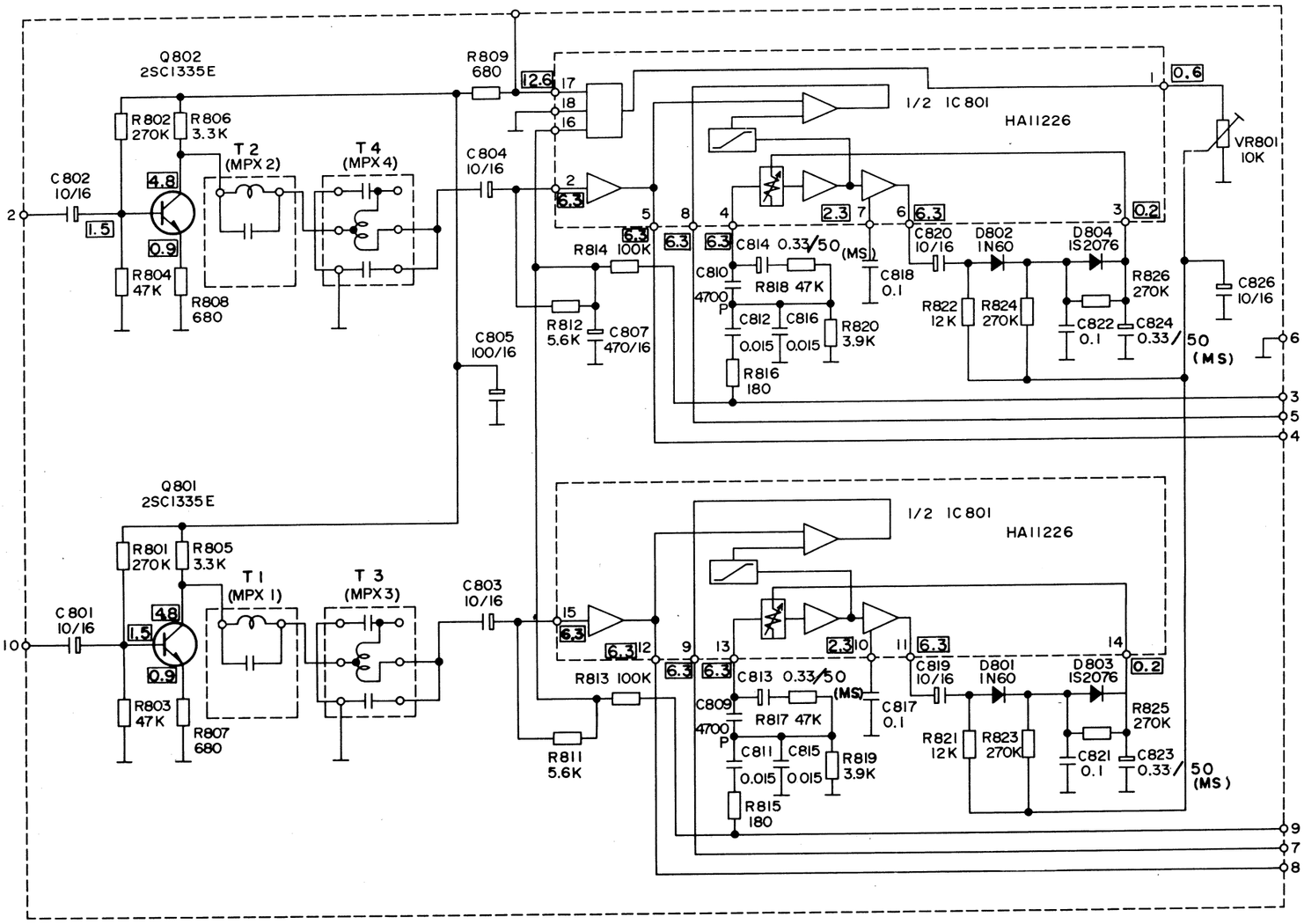
FIGURE 3-4


B1-80
B1-8
B1-12
HD902
HD901
B1-9
B1-7
B1-5
B1-3
B1-4
B1-24
B1-36
B1-13
B1-21
B1-24
B1-24
B1-22
B1-34
B1-19
B1-15
B1-37
B1-62
B1-63
B1-13
B1-6
B1-2
B1-11
B1-32
B1-65
B1-78
B1-79
B1-28
B1-33
B1-24
B1-26
B1-29
B1-35
B1-27
B1-31
B1-75
B1-25
B1-77

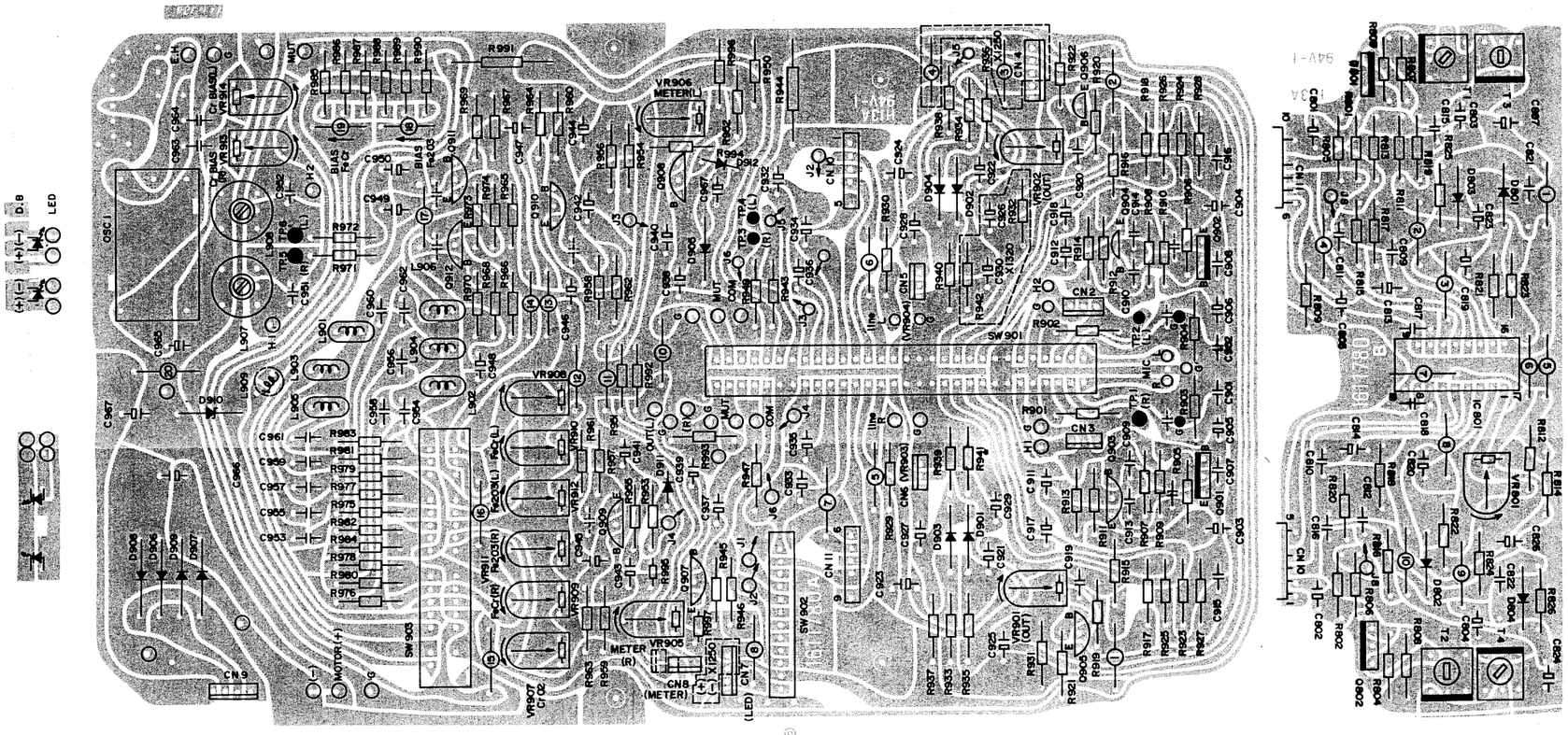

B1-17
B1-16
B1-18
B1-14
B1-15
B1-81
B1-47
B1-13
B1-64
B1-50
B1-50-1
B1-50-2
B1-48
B1-45
B1-73
B1-49
B1-30
B1-41
B1-38
B1-72
B1-40
B1-24
B1-10
B1-42
B1-23
B1-54
B1-74
B1-52
B1-24
B1-20
B1-39
B1-53
B1-59
B1-43
B1-43-1
B1-43-2
B1-56
B1-58
B1-51
B1-46
B1-44
SW904
B1-76
B1-55
B1-57
B1-61
B1-60
B1-1
B1-1-1
B1-1-2
B1-1-3
B1-1-4
B1-1-5

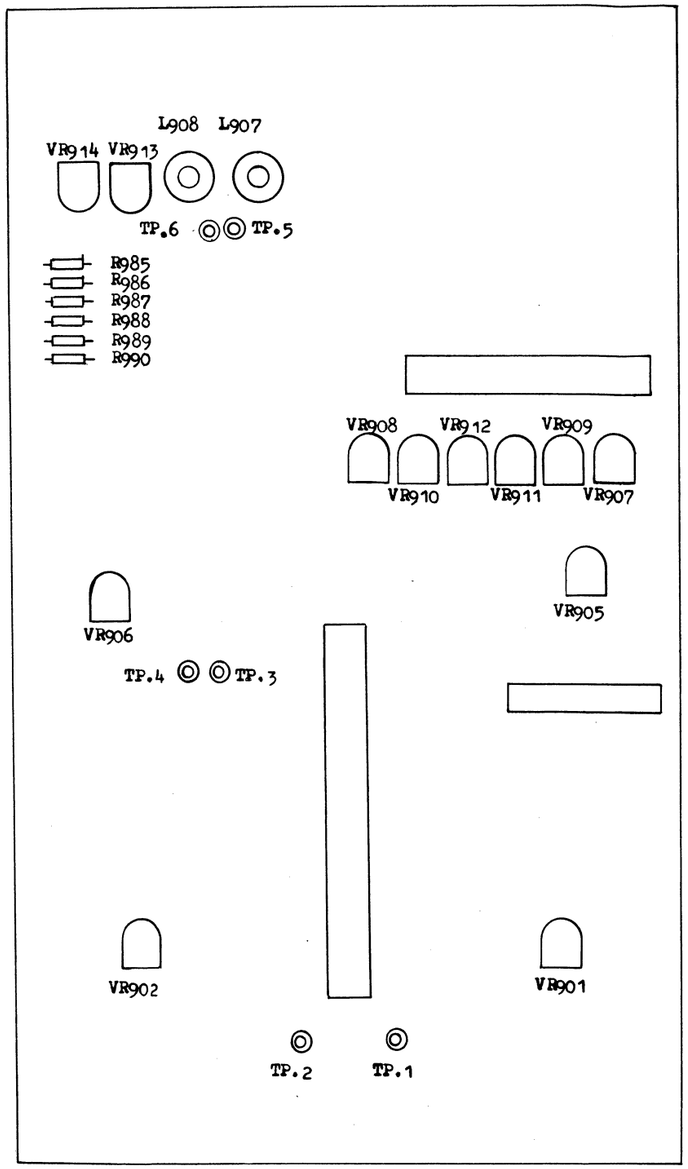


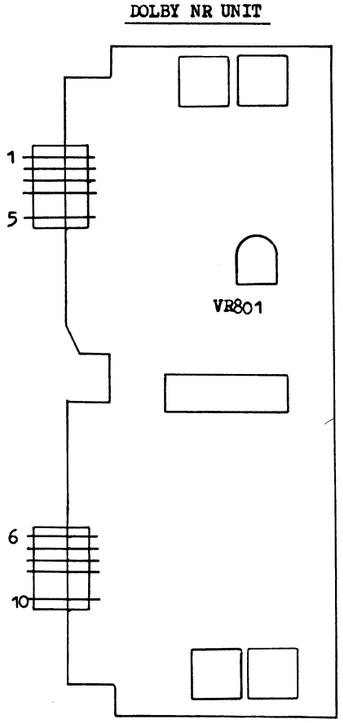
CASSETTE SCHEMATIC DIAGRAM

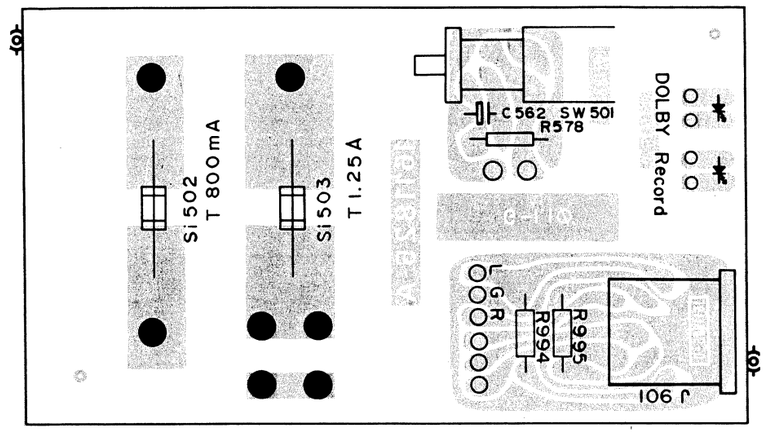


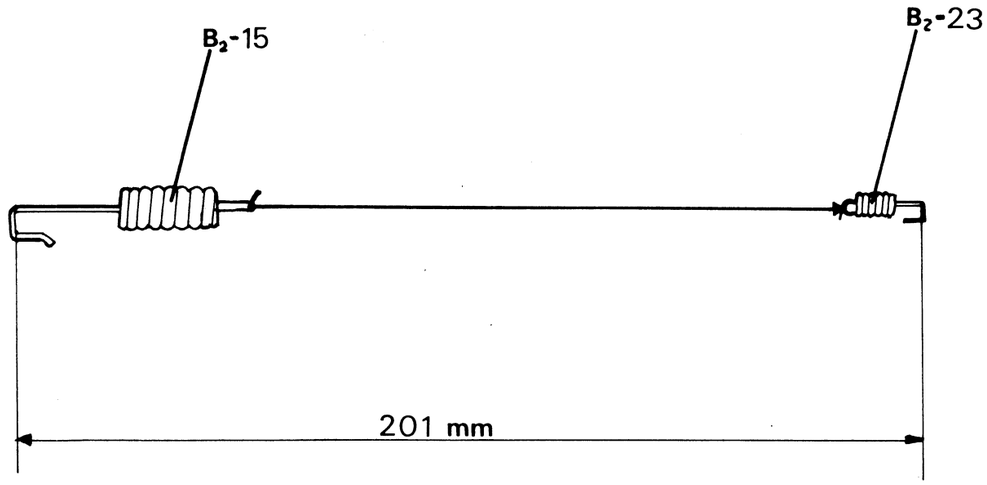
DOLBY NR UNIT SCHEMATIC DIAGRAM

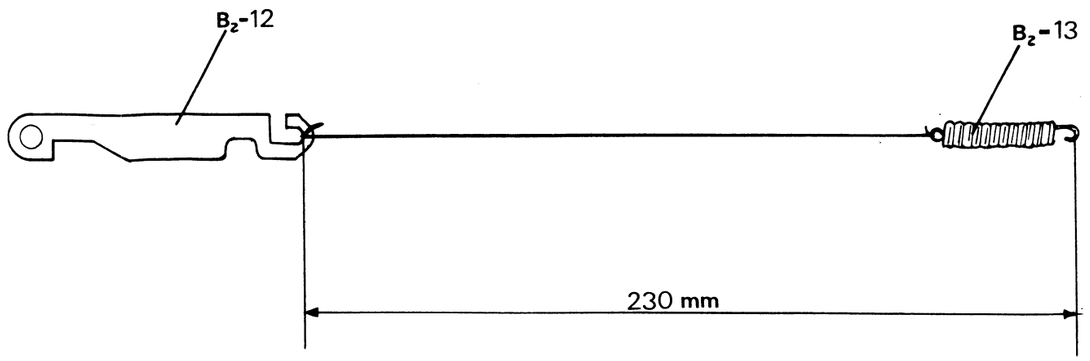












. Abgleich:

Sollte für das Front-Loading
ein Abgleich erforderlich sein,
so ist der Abgleich vom Gerät
Best.-Nr. 028.669 zu nehmen.

Abgleichpunkte:

003.298.7	028.669.0
VR 901, 902	VR 103, 203
VR 905, 906	VR 104, 204
VR 907, 908	VR 105, 205
VR 909, 910	VR 106, 206
VR 911, 912	VR 107, 207
VR 913, 914	VR 109, 209
L 907, 908	L 101, 201
R 985 - 987	R 305 - 307
R 988 - 990	R 308 - 310

ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
1			GEHAEUSE-UND BEDIENTEILE:	
2				
3	A 1	A	FRONTRAHMEN	948 809 9
4	A 2	A	FRONTDECOR-ALU-RAHMEN	948 810 7
5	A 3	A	GEHAEUSE-OBERTEIL	948 811 5
6	A 5	A	KLARSICHTSCHEIBE	948 812 3
7	A 6	A	SKALA	948 813 1
8	A 7	A	SKALENZEIGER	947 645 8
9	A 8	A	SENDERWAHLKNOPF	947 650 8
10	A 9		KNOPF F.BAESSE HOEHEN BALANCE	947 543 5
11	A10		DREHKNOPF	948 814 9
12	A11		KNOPF	948 815 6
13	A12		KNOPF F.BEREICHSWAHL-EIN/AUS	947 651 6
14	A13		KNOPF F.MONO/AFC/STUMM	947 652 4
15	A14		BUCHSENABDECKUNG SCHWARZ	947 260 6
16	A15		STEREO-ANZEIGEFENSTER	948 816 4
17	A16	A	RUECKWAND	948 817 2
18	A17		KNOPF F TA SCHALTER KRIST/MAGN	921 612 8
19	A18		GEH FUSS	121 203 4
20	A19,20,21		CASSETTENFACHDECKEL KOMPL SCHW.	947 251 5
21	A22		KNOPF	948 818 0
22	B13	A	SEILRAD	947 696 1
23	B14	A	FEDER F.SEILRAD	947 697 9
24	B16	A	BEFESTIGUNGSSTIFT F.KLARSICHTSCH	947 698 7
25				
26			MECHANISCHETEILE FUER LAUFWERK:	
27				
28	A19,20,21		CASSETTENFACHDECKEL KOMPL SCHW.	947 251 5
29	A1-3		TASTENKNOPF SCHWARZ	947 248 1
30	B1-1	A 1	CASSETTEN-LAUFWERK KPL.	948 819 8
31	B1-2		KOPFTRAEGERPLATTE	947 284 6
32	B1-4		AUSLOESEHEBEL	947 285 3
33	B1-5		FEDER F AUSLOESEHEBEL	947 286 1
34	B1-10		FEDER F KOPFTRAEGERPLATTE	947 288 7
35	B1-11		GUMMIANDRUCKROLLE	947 289 5
36	B1-12		FEDER F GUMMIANDRUCKROLLE	947 290 3
37	B1-13		SCHEIBE	948 820 6
38	B1-14		SCHWUNGMASSE	948 821 4
39	B1-15		ZAHNRAD	948 822 2
40	B1-16		TASTENSCHIEBER	947 791 0
41	B1-17		HALTEBLECH F HINTERES LAGER	947 796 9
42	B1-18		ANTRIEBSRIEMEN	947 293 7
43	B1-19		HEBEL F VORLAUFPULLEY	947 797 7
44	B1-20		LAUF-PULLEY	947 294 5
45	B1-21		FEDER F LAUFPULLEY	947 295 2
46	B1-22		ZAHNRADHEBEL	947 798 5
47	B1-23		ZAHNRAD	947 799 3
48	B1-24		SICHERUNGSSCHEIBE	947 800 9
49	B1-25		AUTO-STOP-HEBEL	948 823 0
50	B1-26		AUTOSTOPAUSLOESEHEBEL	947 297 8
51	B1-28		LOESCHSPERRE	947 298 6
52	B1-29		FEDER F LOESCHSPERRE	947 627 6
53	B1-30		VERRIEGELUNGSHEBEL F CASS-DECKEL	947 299 4
54	B1-31		FEDER F VERRIEGELUNGSHEBEL	947 300 0
55	B1-33		FEDER F BREMSHEBEL	947 802 5
56	B1-34		GUMMI F BREMSE	947 301 8
57	B1-35		ANDRUCKFEDER F CASSETTE	947 804 1
58	B1-36		RUTSCHKUPPLUNG	948 824 8
59	B1-37		ABWICKELTELLER	947 303 4
60	B1-38		AUFNAHMEHEBEL	947 304 2
61	B1-39		HEBEL	947 806 6
62	B1-41		RUECKLAUFHEBEL	947 305 9
63	B1-42		FEDER F RUECKLAUFHEBEL	947 306 7
64	B1-43		WIEDERGABEHEBEL	947 307 5
65	B1-44		FEDER F WIEDERGABEHEBEL	947 308 3
66	B1-45		SCHALTHEBEL	948 825 5
67	B1-46		FEDER	948 826 3
68	B1-47		ZWISCHENRADEINHEIT KPL.	948 827 1
69	B1-48		HEBEL,SCHNELLVORLAUF	947 310 9
70	B1-49		FEDER F SCHNELLVORLAUFHEBEL	947 311 7
71	B1-50		PAUSEHEBEL	947 312 5
72	B1-51		PAUSE-RASTPLATTE	948 828 9
73	B1-53		FEDER	947 813 2
74	B1-55		HEBEL	948 829 7
75	B1-56		STOPHEBEL	947 816 5
76	B1-57		FEDER	948 830 5
77	B1-58		HEBEL,CASSETTENAUSWURF	947 313 3
78	B1-59		FEDER F CASSETTENAUSWURFHEBEL	947 314 1
79	B1-60		AUSLOESE-SCHIEBER	948 831 3
80	B1-61		FEDER F RASTSCHIENE	947 819 9
81	B1-64		SCHEIBE	948 832 1
82	B1-65		SCHIEBER	947 803 3
83	B1-66		MOTORPULLEY	947 628 4
84	B1-70		ZAEHLWERK-RIEMEN	947 629 2
85	B1-71		ZAEHLWERK	946 599 8
86	B1-72		FEDER	948 833 9

ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
87	B1-73		FEDER	948 834 7
88	B1-75		STOPHEBEL	948 835 4
89	B1-79		ABSTANDSROLLE	947 794 4
90	B1-80		KOPFTRAEGER	948 836 2
91	B1-81		HUELSE	948 837 0
92	B2-10		RASTHEBEL	948 838 8
93	B2-11		CASSETTENDECKELDAEMPFER	947 630 0
94	B2-12		BREMSHEBEL	948 839 6
95	B2-13		FEDER	948 840 4
96	B2-15		FEDER	948 841 2
97	B2-21		FEDER-CASSETTENDECKEL	948 842 0
98	B2-23		FEDER	948 843 8
99				
100	L601		SCHALTHEBEL FUER BOWDENZUG	948 858 6
101	L602		SCHALTHEBEL FUER BOWDENZUG	948 859 4
102	W601		BOWDENZUG	948 856 0
103	W602		BOWDENZUG	948 857 8
104				
105			ELEKTRISCHE TEILE TAPE-DECK:	
106				
107	KPL.	A 1	DOLBY-PLATINE KPL.	948 848 7
108	OSZ.-BLOCK		OSZ-BLOCK	948 847 9
109	HD901		A/W-KOPF	947 315 8
110	HD902		LOESCHKOPF	947 316 6
111	MT601,602		MOTOR,MMX 5A2LSF 13,2 V SERVO	947 321 6
112	SW901 A/W		SCHIEBESCHALTER	948 844 6
113	SW902 CRFE		SCHIEBESCHALTER	948 845 3
114	SW903 DOLB		SCHIEBESCHALTER	948 846 1
115	SW904 MOT.		MIKROSCHALTER	947 954 4
116	SW905 MUT.		SCHIEBESCHALTER,STUMMSCHALTUNG	947 333 1
117	MPX1,2		FILTER 100 KHZ	947 319 0
118	MPX3,4		FILTER 19 KHZ	947 320 8
119	VR801		TRIMMPOTENTIOMETER 20 KOHM	920 800 0
120	VR901,902		TRIMMPOTENTIOMETER 20 KOHM	203 502 0
121	VR903,904		DREHPOTI 20K OHM	948 852 9
122	VR905.906		TRIMMPOTENTIOMETER 20 KOHM	920 800 0
123	VR907-912		TRIMMPOTENTIOMETER 50 KOHM	184 450 5
124	VR913,914		TRIMMPOTENTIOMETER 100 KOHM	380 635 3
125	J901		MIKROFONBUCHSE	948 853 7
126	D601 LED		LEUCHTDIODE GL-3AR1	946 987 5
127	D602 LED		LEUCHTDIODE GL-3PY1	948 463 5
128	D801,802		DIODE 1 N 60	175 045 4
129	D803,804		DIODE 1 S 2076 A	921 584 9
130	D901-905		DIODE 1 S 2076 A	921 584 9

ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
131	D906-909		GLEICHRICHTER SRIK-2	176 045 3
132	D910		ZENERDIODE BZ 150	926 551 3
133	D911,912		DIODE 1 N 60	175 045 4
134				
135	JC801		INTEGRIERTE SCHALTUNG HA 11226	947 343 0
136				
137	Q801,802		TRANSISTOR 2 SC 1335 D	275 026 3
138	Q901-904		TRANSISTOR 2 SC 1344 E	946 625 1
139	Q905,906		TRANSISTOR 2SC 2308 C	947 668 0
140	Q907,908		TRANSISTOR 2 SC 1213 A	275 015 6
141	Q909-912		TRANSISTOR 2SC 2309 D	947 715 9
142				
143			ELEKTRISCHE TEILE RFD.-TEIL:	
144				
145	T601		NETZTRAFO	948 849 5
146	M601,602		AUSSTEUER-INSTRUMENT	948 850 3
147	M603		INSTRUMENT-ABSTIMMUNG	948 851 1
148	SW1		TASTENSATZ 6-FACH BEREICH	947 718 3
149	SW2		TASTENSATZ 2-FACH AFC/STUMM	947 719 1
150	SW3		UMSCHALTER F MAGN/KRIST	921 625 0
151	SW501		NETZSCHALTER	948 232 4
152	SW502		SCHIEBESCHALTER 4D	947 721 7
153	SW503		TASTENSATZ 4-FACH LINEAR-MONO	947 726 6
154	J1		AM-FM-ANTENNENBUCHS	947 690 4
155	J2,3		DIODENBUCHSE 5-POLIG	947 556 7
156	J501		KOPFHOERERBUCHSE	947 557 5
157	J502-505	A	LAUTSPRECHER ANSCHLUSSBUCHSE	922 173 0
158	J901		MIKROFONBUCHSE	948 853 7
159				
160	PL501-504		LAMPE 12V 0.2A	948 854 5
161	PL505		LAMPE F STEREO U INSTRUMENT	922 092 2
162	PL506		LAMPE 12V 100 MA	948 855 2
163	PL601		ANZEIGELAMPE	920 783 8
164				
165	C108		KERAMIK-KONDENSATOR 33 PF	947 664 9
166	C549,550		ELKO 2200 UF/35V	947 713 4
167	C551		ELKO 2200 UF/56V	947 546 8
168	C552		ELKO 220 UF/63V	945 095 8
169	R559-562		WIDERSTAND 0.22 OHM 2WATT	947 724 1
170	R567		WIDERSTAND 22 KOHM 3 W	200 630 2
171	R579		WIDERSTAND 5,6 OHM 5 W	200 702 9
172	TC1-3,6,10		TRIMMER 8 PF	121 243 0
173	TC4		TRIMMER 10 PF	134 049 6

ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
174	TC5,7		TRIMMER 20PF	134 050 4
175	VR2,4,5		TRIMMPOTI 5 KOHM	922 145 8
176	VR3		EINSTELLREGLER 3K	947 669 8
177	VR501-504		DREHPOTI 100 K HOEHEN BAESSE	947 559 1
178	VR505,506		DREHPOTI 100K LAUTSTAERKE	947 561 7
179	VR507		DREHPOTI 100 K BALANCE	947 562 5
180				
181	VC1		DREHKONDENSATOR	947 691 2
182	L1		FM-BALUN-FILTER	947 670 6
183	L2		FM-EINGANGS-FILTER	947 694 6
184	L3		FM-KOPPEL-SPULE	947 671 4
185	L4		FM-ZWISCHENKREISSPULE	947 672 2
186	L5		FM-OSZILLATORSPULE	947 674 8
187	L6		FALLE	947 717 5
188	L7		KW-ANTENNENSPULE	946 606 1
189	L8		MW-ANTENNENSPULE	946 607 9
190	L9		LW-ANTENNENSPULE	946 608 7
191	L10		KW OSZILLATOR SPULE	922 110 2
192	L11		LW OSZ SPULE	134 033 0
193	L12		MW OSZ SPULE	134 034 8
194	L13,15		DROSSEL	947 676 3
195	L14		DROSSEL 18 UH	947 678 9
196	L16-19		DROSSEL 12 MH	947 677 1
197	L20,21		ANTENNENDROSSEL	947 675 5
			ERSETZT ET-NR. 947 673 0	
198	L501,502		DROSSEL 18 UH	947 678 9
199	T1		FM-ZF-FILTER	946 969 3
200	T2		FM-ZF-FILTER	947 679 7
201	T3		AM-ZF-FILTER	947 681 3
202	T4		AM-ZF-KERAMIK-FILTER	947 680 5
203	SF1,2		FM-ZF-KERAMIK-FILTER	947 692 0
204				
205	D1-3		KAP-DIODE 1SV 53F1	947 699 5
206	D4		DIODE 1 S 2139 B	920 963 6
207	D5		KAP-DIODE 1SV 53F2	947 700 1
208	D6,7		DIODE 1 S 2076	176 432 3
209	D8-10		DIODE 1 N 60	175 045 4
210	D11-19		DIODE 1 S 2076	176 432 3
211	D501		BRUECKENGLEICHRICHTER M4C-31	947 714 2
212	D502-505		GLEICHRICHTER VO-6 B	176 012 3
213	D506		ZENERDIODE WZ 140	176 834 0

ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
214	D507,508		DIODE KB 362 M	947 554 2
215				
216	JC1		INTEGRIERTE SCHALTUNG HA 11211	947 666 4
217	JC2		INTEGRIERTE SCHALTUNG HA 1156	921 583 1
218	JC3,4		INTEGRIERTE SCHALTUNG UPC 1024 H	947 555 9
219	JC501		INTEGRIERTE SCHALTUNG UPC 574	925 744 5
220	JC801		INTEGRIERTE SCHALTUNG HA 11226	947 343 0
221				
222	Q1,5		TRANSISTOR 2 SK 49 E	923 194 5
223	Q2-4		TRANSISTOR 2 SC 535	175 854 9
224	Q6		TRANSISTOR 2 SC 460 B	175 334 2
225	Q7,8		TRANSISTOR 2 SC 458 C	175 588 3
226	Q9,10		TRANSISTOR 2 SC 1335 D	275 026 3
227	Q11,12		TRANSISTOR 2SC 2309 D	947 715 9
228	Q501-504		TRANSISTOR 2SC 2309 D	947 715 9
229	Q505,506		TRANSISTOR 2 SC 458 C	175 588 3
230	Q507,508		TRANSISTOR 2 SA 640 M	275 031 3
231	Q509-512		TRANSISTOR 2 SC 1213 A	275 015 6
232	Q513,514		TRANSISTOR 2 SA 673	175 930 7
233	Q515-518		TRANSISTOR 2SD 726 C	947 716 7
234	Q519,524		TRANSISTOR 2 SC 1368 C	947 667 2
235	Q520,23,25		TRANSISTOR 2 SC 1213 A	275 015 6

ENDE